

I 1934

1934-I

Lakeside Lab. 4/22

Prairie west, etc

Water-levels, etc.

shore plants - high water level

Lakeside Lab. 7/31-

Note Book

No. 188

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79

//

B. Shimek
Iowa City, Iowa, 529 Brown
(or Lubin's Lab.)

1.56,

Expense

June 21 Iowa City - Gas	1.50	oil	1.00	\$ 2.50 +
June 22 Ames. - gas, - meal 35				1.56 +
Midford gas & oil				1.86
Brown - 1 week - for two				9.00
Parker (Reunion)				1.50
June 29. - Brown for two				9.00
July 8. " " " 2 days				2.50
Jewell - gas & oil. 167 + .27				1.94
State Center meal				.51

\$ 2.50	
1.91	
1.86	
<u>\$ 6.27</u>	one way, 1 small meal

June 22-1934 - Friday.

Left Iowa City at 5:48 am.
We drove to Marengo, cut across
to Belle Plaine, and followed
30 to Ames.

We travelled through a good
steady rain for 50 miles from
Iowa City.

We reached Ames (Agric. Bldg.)
at 9:10 am. and I went to
Prof. Macdonald's office.

He took me to Dean
Kildee's office, where I also
met Mr. L. A. Schreeman,
the Federal Agent looking
up marginal lands. I had
a nice 1/2 hour's visit with him
and set out the advantages
of the Little Sioux area.

Worthy prairie, but with other
areas (hairy logs, woods, etc.)

also easy administration. Lawrence
Laboratory had Centurian and
worked with both State Board.

He has his head quarters at
Urbana, Ill., where he was
called for the next day,
but promised to come up early
in July.

We then drove north on
#15 and stopped at Little Wolf
Lake. This is without water,
excepting a very little on
E. side.

For several miles N. of Ames
trees have been ^{small} planted
irregularly, or in ^{small} clumps
along the road.

The region was very dry
until we reached Palo Alto
Co. From there to the lake
it was fresher, green, and water

appeared in ponds, etc. A very
hot day.

We started at the Milford
Park and reached the Laboratory
at about 5:10 pm.

Met Dr. Wolf & wife,
^{Dr. & Mrs. Anderson}
Dr. Jacques, Rose, Carter, etc.
Mr. & Mrs. Penley (the Dracs)
etc. We located in the

guest room of the cottage.

What prairie we saw
looked green but sickly, -
few bright clumps.

In evening called on Dr. F. J.
Smith, and arranged to go
to Little Sioux tract Monday
morning.

June 23, 1934 - Sat.

Spent the day in arranging my papers and plats, and Margie helped me make measurements of buildings for plat on original Laboratory tract. She plotted them in the morning, and I plotted them in afternoon.

June 24, 1934 Sun.

Worked on notes and plats. In afternoon we drove to Ann Upham (Margie's cousin) at Haywards Bay. Found her and had a short visit.

June 25, 1934 - Mon.

My brother-in-law, Dr. F. J. Smith, Dr. Wolf, Dr. Anderson and I drove to the Little Ferry tract. We first examined the upper part of the tract, driving across and around north end, then going S. to rubber bottle hole, hanging logs, spring creek, etc., and I selected parts suitable for preserve. All were greatly impressed with the area. We noted poor soil in cuts, etc., and much underbrush land. (See plat).

We then drove across S. end to Milford, and to Lab.

In afternoon I plotted the area, making copies for Dr. Wolf.

Dr. Anderson, Dr. Smith, Mr.
Schroeder, etc. (some, next 2
days)

In evening at table the folks
chanter a birthday greeting

June 26, Tues. (1934)
Spent day in making plates

June 27, 1934 - Wednesday

Worked on notes and plates.
Received telegram from
President Jensen that Board
of Education Committee would
visit us Friday, & asking that I
telegraph Chairman Judge
Carlson.

Worked on notes for this
meeting with Committee, and
in early afternoon went to
Wilford & sent telegram
to Judge Carlson.

A hot day

June 28, 1934 Thursday

Worked on plates and on notes for meeting with Committee.

A hot day.

June 29, 1934, Friday.

In the morning I worked on plates and on notes for committee meeting until 3 PM.

At 3 PM, the committee (Judge Carlson, Mr. Shull and Mr. Keran) arrived and we had an interesting session. Dr. F. J. Smith, Dr. Wolf and I met with the committee.

They stated the two fears - that Lab. would be a crutch,

and that cost would be great. I took up both points (re letter to Dr. Bodine) and Dr. Wolf also explained low cost of maintenance.

We all had the impression that the Board was well informed. We took them over the grounds and the property, showing its extent and usefulness for our purpose. Judge Carlson stated that it might be well for us to be on hand at the Aug. meeting July 10, if they concluded to report.

June 30, 1934 Sat.

Made additional measurement
for plat with McTierley
Worked on plants

July 1, 1934 - Sun.

Worked on plants. In the
afternoon ^{we} drove to Margie's
cousin, Ann Wham at Haywards
Bay. We had a short visit
and returned via Arnold's
Park and Milford.

July 2, 1934 - Mon.

In the forenoon I went
out with Supt. Thorsen
of the C.C.C. camp to get
high water line and also
to view park.

We worked on beach both
north and west of Gull Point.
Thorsen took levels (with
Flickinger)

On N. side we took elevation
Sta. 1. On bank (base) ^{above lake} ^{Arnold's Park}
+ some boulders. 46 in. (= 106.0) ^{garage}

Sta. 2 - Upper line of boulders. 57 in.
above lake, (= 106.9) ^{garage}

Sta. 3 - Upper line of beach plants
49 in. above lake (= 106.2)
^{S. side Gull Pt.}

Sta. 4 - Top of higher ice-shore ^{sand} ridge
67 in. above lake (= 107.7)

Sta. 5 - Top of lower ice-shore sand-
ridge, 50 in. above lake (= 106.3)

Sta. 6- Top of boulder 48 in.

above lake (≈ 106.2)

Sta. 7- Top of ice-shore boulder

ridge, 42 in. (≈ 105.7)

Sta. 8- Top of ice-shore boulder ridge

53 in. above lake (≈ 106.7).

Sta. 9- Top of ice-shore boulder

farther west, 49 in. (≈ 106.7)

Average = 106.4.

Reading at Arnold's Park
gauge that day (by Mrs.
Thorsen) ≈ 102.15 .

Last year, in Tenare Park
beach work, the Arnold's Park
gauge read 103.08.

My estimate last year 3.5 ft

I also took notes on the
beach plants and then lost
them, so Margie and I drove

out & I went over same
ground Wed., July 4. (see notes
for that day).

In the afternoon I
worked on notes and plates.

July 3, 1934 Tuesday,

In forenoon worked on notes
and plates, and at 1:30 we
drove to White cottage just
E. of Crescent Beach Hotel,
where Board of Conservation
was meeting.

I presented the need of the
purchase of the high point, and
also reported on the Gull Point
high water level.

Worked on notes, etc., and in
evening we drove to Milford
and on return were caught in
a terrific rain (+thunder) storm,

July 4, 1934

Worked on notes and plates
Remained in morning. In
afternoon The Fish & Game
Comm. people (Dr. Boone, Mr. Rosen,
Dr. Poole, Mr. Bauer (of Orleans),
Mr. Graders & their ladies
(the secretary) called and
the Lab. and we visited
with them.

We then drove to Cousin
Annie's for a short visit, hoping
to find Sally Allen (failed)
and returned to Lab.

July 5, 1934, Thurs.

In the morning Mr. Thorne
took another reading on
ice-shore boulders above
dock, showing 46 in. above lake.
He & Mr. Sylvester (or ^{Thorne} ~~Thorne~~)
and I then drove to Ingle
Det. Park, and Mr. Sylvester
and I went over the south
(or preserve) part and I
suggested consolidation of
refuge & parking nature
trails outwards, with only
one dip-in west and east.
Also small parking area
at Crescent Beach end was
suggested by Mr. Sylvester.
Men brought snake, taken
among boulders. (See spec.)
Drove back to Lab.
The Park has area of 72 acres.

In the afternoon Marie
and I drove to Gull Pt.
and I took another list
of beach plants.

N. of Gull Pt. I observed

Ribes floridum fr.
Amorpha fruticosa fl. fr.
Asclepias incarnata fl.
Paederia gynandria lf.
Polium trachyspermum fl. +
Green ash (redling)
Columbine (")
Xanthium lf.

Polygonum convolvul.
Potentilla (one spec)

Salix amygdaloides (large at edge)
" longifolia
Aster lf.

Polygonum (dark spot on lf)

Hordeum policulm

Antennaria caudata very com.

Eriogonum canadense lf.
Rumex americanus (redling)
Trigonotis foetida old fl.
Chenopodium album

Lepidium apetalum fl. fr.
Taraxacum officinale fr.
" erythrorhizon fr.

Urtica gracilis com.

Asclepias syriaca lf. few

Lycopus americanus

Oxybaphus myrsinifolius

Salix hali var. com.

Lactuca scariola var.

Melilotus alba - fl. few

Ambrosia psilostachya lf.

S. side of Gull Pt.

Polium trachyspermum

Salix longifolia

Amorpha fruticosa

Xanthium

Chenopodium album

Polygonum lapathifolium

" pennsylvanicum

Convolvulus sepium fl.

apocynum cannabinum var.
Ambrosia artemisiifolia L.
Zenaidura macroura, fl.
Hordeum jubatum L.
Salix bali var.

Acrida

Polygonum convolvulus

On upper part of sand point:

Sporobolus cryptandrus

Pentstemon grandiflorus

Artemisia canadensis (very com.)

Cyperus Schweinitzii

Carex (one spec.)

etc.

In afternoon I caught large snail.
12 1/2 x 18 in., weight 32 lbs.
In the evening we drove
to Woodcock's cottage at
Zurace Park and I reported
on Gull Pt. Park.

Woodcock informed me that
the Board visited "high point"
but objected to price and
to buildings.

We discussed better
presentation of matter.

On return we were
caught in another
down-pour.

July 6, 1934, Fri.

In forenoon I made plants of
our tract.

In afternoon Dr. Wolf, Dr.
Anderson and I outline part
of lawn, etc., to be cut, &
Dr. Anderson and I went
over our prairie area.
Found pheasant nest with
7 eggs.

A cold day.

There had been rains here recently and things look fairly well, but the effect of the dry winter & spring are notable.

The prairie is coming back in on north 60 acres, and especially on the sides.

I notice following:

Bouteloua curtipendula fl.
" *oligostachya* fl.
Cirsium canescens - 1 in fl.; red.
Petalostemum purpureum fl.
Prunella cuneata dr. low

July 7, 1934 Sat

I worked on the flats. Then in the forenoon, and in the latter part of the afternoon I worked on the Floate prairie, north of the road, while Margie drove to Milford.

I collected plants and notes also the following: (List not complete)

July 7, 1934

Flacke native prairie (south)

Eryngium yuccifolius fl. - scat.

Brunneria angustifolia fl. scat.

Petalostem candida fl. scat

" *perfoliata* fl. more common

Erigeron annuus fl. (small plants)

Anemone canescens fl. - common

Asclepias tuberosa fl. (lower slope) few.

Coreopsis palmata fl. scat.

Stipa spartea (mostly white) small - very com.

Milium canadense fl. scat.

Lithospermum angustifolium lf. few

July 8, 1934 - Sunday

In the morning we did some parking and then Dr. Wolf and I drove to the Hanging bog B. of west end of Silver Lake.

The upper part of the bog had been dry earlier in the season and *Lymnaea caerulea* was restricted only to lowest part. The small *Utricularia* was also scant.

Very few plants were in flower, but I collected following (see list):

Saxifraga americana

Vilfa fr.

Liparis loeselii - fr. (seen 3 or 4 sp.)

I also collected *Glycerhiza*
lepidota on the Comptosia
where we stopped car.

It was mostly in flower (prime)
but a few had green fruit.

We walked over quite a
bit of the bog, but there was
little color.

The violet were in the
uppermost part of the bog on
the wetter part between
around the little pools.

The bog was disappointing
partly because it was
early and partly because of
the early very dry spring
season. There was very
little color, as few plants
were in bloom. The bog
was evidently improving, as

there had been rains, but
it was not as fine as last
year.

We returned to the
Calumet and packed
for our homeward
trip.

We left at 1:45 P.M.
It was raining a little,
but we soon passed
through it, and while rain
threatened all the way, we
had none, though we
evidently followed a storm
(or storms) as the pavements
were wet in many places
before we reached Ames.

Beyond Ames the
conditions were much drier,
and there was less recovery.

in crops. We returned
via Miller Plains and
Marana, and reached
home at about 10 PM.
We had stopped for
supper at State Center.

After returning from
the hanging log
Marine and I went
over the Flote tract
just south of the Lab. barn.
This was once cultivated,
and then pastured or cut
for hay, but it is
coming back. I noted
plants as listed on next page,
& collected some.

On Flote tract near barn S.
of barn.

Oxybaphus myrsinifolius fl. xv.
Verbena stricta fl. frequent
Erigeron annuus fl. 2-3. com.
Zizia aurea fl. frequent
" hybridum fl. frequent.
Potentilla canadensis fl. frequent
Aster multiflorus fl. not rare clumps
Rudbeckia hirta var. var. com.
Physalis heterophylla fl. 1-2 com.
Vaccinium — ? fr. ~~clumps~~ ^{several}
Phlox pilularis com.
Aster multiflorus fl. 1-2
asclepias syriaca fl. 1-2
Rosa pratincola fl. 1-2 com.
apocynum cannabinum fl. com.
Lysichiton spicata fl. few clumps
Conoclinium coelestinum fl. com.
Cirsium arvense fl. patch
Cirsium vulgare fl. few
Medicago sativa fl. clumps
Urtica dioica fl. clumps

Zinnia oppositifolia fl. fr. com.
" erythrorhiza fr. 2 cl.

acutata verticillata fl. 1.

osa protuberans fl. fr. com.

Solidago rigida fl. 1 cl.

Lactuca ludoviciana fr. 3 sp.

Astragalus canadensis fl. few clumps

Petalostemum purpureum fl. clumps

Andropogon furcata fl. few clumps

Helianthus grosseserratus fl. near base

" heterophyllus fl. " "

Vitis vulpina fl. fr. " "

Galium aparine fl. large clump

Oxalis fl. com.

Euphorbia maculata fl. 1

Cirsium canescens fl. com.

Achillea millefolium fl. 1

Asclepias tuberosa fl. 2

Helianthus scaberrimus fl. quite com.

Achillea millefolium fl. fr. com.

Physalis virginiana fl. fr. com.

Let 2 out 1 Euphorbia maculata
both very com.

Brauneria angustifolia fl. fr.

Burdock fl. fr. clump

Asclepias verticillata fl. fr.

Symphoricarpos occidentalis fl. 1

Asclepias verticillata fl. - patch

50 Asclepias verticillata fl. (low) 1 fl.

Antennaria dioica fl. 2 patches

Ceanothus americanus fl. few

Lathyrus vernus fl. patch

Desmodium canadense fl. large clump

Thalictrum dasycarpum fr. 1

Agropyron tenerum fl. few

Oxalis virginiana fl. 1 fl.

Agropyron Repens fl. com.

Plum glabra fl. at 1st patch

60 Liliopsis com. fl. small patch

Acetosa rubra lanceolata fl. 1

Solomon's seal fl. 1

Left at 1:45 PM. at 24457

6.7 to creek (outlet of lake)

Lab. gate	0	Lower River	99.1 1/2
Turn east	0.4 1/2	New road	99.5
" south	.7	Garnett	100.3
" east	2.7	(new road)	100.10
" S. to Milford	4.1 1/2	Stamm road	107.3
Milford (amptn)	5.3 1/2	Lower River	107.8 1/2
" RR	5.6 1/2	Kendall	113.0
Turn W. - Co. line	10.4	Co. line (Krypl)	114.1
" S - " "	10.8	Lower river	117.3 1/2
Factoria road	11.7 1/2	" "	117.6 1/2
#18	15.5	Belmond	118.3 1/2
Spencer, RR	18.4	Lower river	120.1
(71st St) - turn E.	19.6	" "	124.7
Dickens road	25.6	C. & N. W. RR Soling	125.6 1/2
Co. line (Palo Alto)	31.1	Line #10	126.9
Ruthven	31.8 1/2	(Salt) RR	128.6
#17	38.8 1/2	(Strongest S.)	
Des Moines river (new)	41.4	Co. line (Hamilton)	138.8
" " (old)	41.5	Blairburg RR	143.9
Emmett Bay - #17	43.6	Jewell	155.6 1/2
" RR	43.8	Little Lake Lake	158.7
Cylinder	51.6	Co. line (Story)	163.3 1/2
Co. line (Kosuth)	57.1	Story City road	164.8
Whittenow road	58.0	RR	166.3
Algona (west)	67.3	Ames #15 #30	176.1
Des Moines Riv.	67.6	Boone river	177.3
Algona (east)	68.3	Frederick	184.6
Sexton	74.6	RR (Circuit) 187.7	187.7
Wesley	79.5	Co. line	191.5
Co. line (Hancock)	81.2	Co. line (Mankato)	195.8
Hutchins	85.9	State Center	199.1
Britt	90.0	(turning) at 6:39 PM	
Engle Lake road	93.1	Started at 7:05 AM	
Duncan	94.7 1/2		

38
45
40
123

1st hr - 38 mi.
2nd 83" - 45
3rd 123" - 40
4th 161" - 38

Silphium laciniatum common
 E. of Ogilvie, Pals, atth G.
 All small plants, - as elsewhere.
 Also many between Section V
 Wesley in Kossuth Co. - all
 rather small.

Also similar lot east of
 Hutchins, Hancock Co.

Verbena stricta very abundant in
 pastures beyond Britt, - all way.

All looks fresh & green to and
 beyond Garner.
 Dead evergreen all along the
 line.

No water visible in Little
 Wall Lake.

Things looked green toward
 Arva, but greener than
 before. Toward Marshalltown
 pastures still quite yellowish.

State Center 199.8		Lost about 15 mi. (added)
(con.)	(town)	
Bridge over RR	209.5	
Marshalltown (RR)	214.3	Marango #6. 268.3
Le Grand	222.5	So. Anna 274. ?
Co. line	225.5	C. M. S. P. Ry. 277.1 -
Monkton	228.1 -	Homedale #49 278.8 1/2
Journid, 232.3		" RR 279.3 1/2
Zama	235.4 1/2	Co. line 281.1
Chelona road	236.6	Oxbow { 284.2 1/2
Boyle Plain #73	246.9	{ 285.7
	252.8	Ziffin 291.0 1/2
Lewanna	255.4	Comible 296.7 1/2
		Home 299.8
		RR, Linn 233.7 -
		#70 235.2 1/2
		Shadown 239.8
		Co. line Bark 251.6

Arrived at 9:59 + 5.

299.8
 235.4 1/2
 64.3 1/2

79.8
 64.3 1/2
 15

Aug 18 Iowa City ¹⁵⁰ oil 1.00 2.50. 1
Milford gas 1.24

July 31, 1934, Tuesday - Okoboji
We left home at 5:30 AM.
The morning was cool and pleasant.
Paul & Bertha (with Dorothy) left
just before us for their home trip.
We drove via #101, #218 and
#18. as far as Ruthven.

I tried a little unsuccessful
bridging just beyond Cedar Falls.

The unbroken pasture prairie
N. of Cedar Falls had much
Verbena stricta, - other prairie
plants evidently having been sheltered
by stock. The Verbena not eaten.

I stopped at Buffalo Slough,
at Mason City, but it was
dry as a chip. Stock was
feeding over it, and the pool
south of road at the road fork
was a hayfield, just cut over.

I tried dredging in the Iowa River (here a small creek) west of Garner, but stock tramped in is too much. There were several carved-in burrows of muskrats in the bank.

W. of Emmetsburg a farm on N. side of road showed much better small grain east of grove at house than west of it.

This was notable in many other places along the route, East of Clear Lake (& elsewhere). The trees on W. side of groves suffered much more. Scotch Pine, Arbor Vitae & some Spruces were dead all along.

Many thin trees all along the line on the prairies showed dead tops & many dead

individuals. Some of this is not this year's effect.

Fields exposed fully to west are quite wintering poorer (in crops).

We took the county road cut-off beyond Ruthven to Lost Lake Lake.

The west side of the lake is entirely dry and there are wide beaches along the larger part east, — very low. I collected a small *Cyprinus* on the sandy beach.

We stopped at Mud Lake after driving east between the lakes. There is some water visible. Yellow headed blackbirds were very plentiful & I saw many water birds. I collected

2 *Utricularia* plants in flower
at edge of Mud Lake.

Along the road, W., were several
clumps of very fine *Verbena*
stricta among the common flora.

We drove by Green Slough (in
Clay Co.) and it shows water
in several places above the
road. Could see none below road.

The fields and pastures
along the entire route
looked fresher & greener
than on previous trip.

We reached the Calumet
after 4 PM. and put up
in the "guest-room" of the cottage.

In the evening I talked
mailed with Dr. Wolfe. I
brought up 72 tubes with
shells.

Aug. 1, 1934 - Wednesday
Spent forenoon in writing notes &
arranging papers, etc.

We first drove to Dr. Smith's,
Vestergaard's and Myerly's (at
Manhattan) to ask about cottage.
Price at Vestergaard's \$25.00 per week
at Myerly's \$12.50 to \$22.50, &
at Babcock's (at Manhattan) \$18 to \$35
per week. In all cases call is
for window except the linen.

In early afternoon I wrote
notes. Then we drove to Milford
for formalin & rubber cement.

In the evening I went to
the Ffocete prairie N. of
road.

See plants on following
pages.

Ground is lower. Here a big bed
Silphium perfoliatum (fl.)
 Also smaller patch of *Andropogon*
furcata - Westman, up slope a little
 is a considerable patch of
Bouteloua curtipendula - down bed.

Scattered through it a few of
 of following

Amorpha canescens (fr.)
Petalostem purpureum fl. fr.
Eriogonum canadense fl. al. al.
Helopsis scabra, fl.
Lepachys pinnata fl.
Andropogon furcata fl.
Kuhnia v. complanata fr.
Equisetum
Carex pensilvanica fl.
Liatris pinnatifida fr.
Artemisia multiflora fl.
Solidago rigida fl. (fr.)
Allium stellatum fr.
Branonia angustifolia fl.
Cirsium rostratum fl.
Equisetum flavum fl. com.
Acer rubrum fr.
Agropyron Richardsonii fl. fr.
Solidago nemoralis fr.

artemisia angustifolia
Canisium
Silphium perfoliatum fl. fr.

Big
Andropogon furcata
Artemisia
Eriogonum
Kuhnia
Liatris
Petalostem
Silphium

Andropogon furcata
Artemisia multiflora
Silphium perfoliatum fl. fr.

but will draw from
 section down to low drain

In lower part - with *Silphium perfoliatum*
 & *Andropogon furcata*
Rosa pratincola? fl.
Verbena stricta fl.
Elymus canadensis fl.
Amorpha canescens fl.
Asclepias tuberosa fl.
Artemisia dracunculoides fl.
Agropyron Smithii fr.
Eriogonum yuccifolium
Melilotus alba fl.
Cirsium rostratum fl.
Eriogonum yuccifolium fr.
Poa pratensis fl.
Helopsis scabra fl.
Solidago rigida fl.
Bouteloua curtipendula
Coreopsis palmata fl.
Amorpha angustifolia fl.
Artemisia ludoviciana fl.
Proserpinaca angustifolia fl. fl.
Allium stellatum fr.
Petalostem candidum fl.
Lepachys pinnata fl.
Liatris pinnatifida fr.
Stipa spartea fl. good patch.
Petalostem purpureum fl. fl.
Relbunium canadense - fl.

Apocynum cannabinum fl.
Rhus Toxicaria fl.
Aster multiflorus fl.
Panicum virgatum fl.
Monarda mollis fl. ab fl.
Helianthus scaberrimus fl. (few)
Solidago canadensis fl. towards Helianthus gro.
Chenopodium muricatum fl.
Astragalus canadensis fl.
Andropogon scoparius fl. (few)
Kuhnia fl.
Aster laevis fl. (few)
Lactuca ludoviciana fl. 1

In no place are there abundant
 (except species named), but small
 patches + scattered specimens occur

Lower down Helianthus gro. is com. & still lower, *Paspalum*
strawii - fl.

The Monticlon cuthead is
 downy on most of upward slope to
 west, to top

On upper part of main tract westward,
Artemisia caudata fl. few
Liatris punctata fl. rare, few in fl.
Bouteloua oligostachya fl. small patches
 " *curtipendula* fl. scat
Brauneria angustifolia fl. scat
Stipa spartea fl. stems frequent
Eriogonum racemosum fl. scat. frequent
Hordeum jubatum fl. few (disturbed spots)
Rosa pratincola fl.
Petalostemon purpureus fl. scat.
Aristida (Muhlenbergia) clumps
Monarda mollis fl. not com.
Agropyron Reichenowii fl. scat
Solidago nemoralis fl. scat
Aster multiflorus fl. scat.
Corynephorus holcatus - few late fl.
Anemone patens var. fl. scat
Petalostemon caudatus fl. scat. frequent
Eriogonum hyemale fl. few.
Castilleja septentrionalis fl. sev.
Helianthus scaberrimus fl. fl. 2 in fl.
Solidago nemoralis scat. fl. H. 11
 " *viridis* fl. scat
 " *missouriensis* fl. sev.
Liatris scariosa fl. - scat
Lernum vulgatum fl. few.
Bouteloua hirsuta fl. few
Agropyron Reichenowii fl. scat

Oenothera serrulata fl. very
Lygodesmia juncea fl. few
Oenothera biennis fl. few
Equisetum arvense 3 stalks
Lepidium apetalum fr. (disturb)
Andropogon furcatus fl. ("")
Hardenbergia puberula fr. ("")
Kuhnia v. *complanata* fr. few
Alchemilla *verna* fl. few
Amorpha canescens fl. few
Eriogonum canadense fl. few (disturb)
Ceanothus am. fl. (a little tree)
Polygonum convolvulus fl. (disturb)
Andropogon furcatus fl. ("")
Lepachys pinnata fl. few
Silphium laciniatum fl. few
Eryngium yuccifolium fl. few
Cynopsis palmata fl. few
Helopsis scabra fl. few
Aster multiflorus fl. few
Solidago nemoralis fl. few
Melilotus officinalis fl. 1 (disturb)
" *alba* fl. 1
Andropogon furcatus fl. few
Linum sulcatum fr. few
Solidago nemoralis fl. few
Elymus canadensis fl. few
Vitis vulpina (new fruit) fl.

Coming in March found a
 young mink which has been
 killed by a car. We took it in.
 This is Lutresia vison ^{Hollis.} leucifera
 which extends from N. Wis. and
 Minnesota to N. Ill. & Kansas.
 (This must be Putorius vison Gapp.)
 Spent evening in writing
 notes and listing plants

Hemichena lispida fl. few
Physalis virginica fl. few
" *hirsuta* fl. few also some
Poa compressa fr. scat.
Comandra fl. scat.
Silphium canescens fl. few
Prunella serotina fl. few
Euphorbia corollata fl. few scat.
Aster pluriangulatus fl. few
" *terrestris* fl. scat.
Eriogonum canadense fl. 1 (disturb)
Aster laevis fl. few
Astragalus caryocarpus fl. few
Ranunculus abortivus fl. few
Silene stellata fl. few (1)
Ceanothus am. fr. well up.
Quercus coccinea fr. few
Liatris scariosa fl. few
Solidago nemoralis fl. scat.
Lactuca scariola fl. few

Prunella angustifolia fl. few
Chenopodium album fl. (disturb)
Hardenbergia puberula fl. ("")
Eriogonum canadense fl. few
Andropogon furcatus fl. few
Silphium laciniatum fl. few

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1. A. A. A.

62 *camptocarpus*

Baptisia bracteata
Bontelona curtispiculata com
" *hirsuta* new
" *oligostachya* fr.
Brunneria angustifolia fr.
Cacalia tuberosa
Carex festuacea
" *stenophylla*
Castilleja sessiliflora fr.
Ceanothus americanus fr.
Cirsium canescens
" *discolor*
" *ionense* few
Comandra fr.
Convolvulus alpestris
Coreopsis palmata fr.
Delphinium Penardi
Desmodium canadense fr.
Elymus canadensis fr.
Equisetum laevis com

Erigeron canadensis new
" *ramosus* fr.
Eryngium yuccifolium fr.
Euphorbia cordata
" *maculata*
" *Purshii*
" *serpyllifolium* 1. fl.
Fragaria virginiana
Galium boreale fr.
Gentiana puberula
Gerardia aspera
Glycyrrhiza lepidota
Grindelia squarrosa
Hedeoma hispida
Helianthemum
Helianthus grosseserratus fr.
" *Maximiliani*
" *scaberrimus* fr.
Heliopsis scabra fr.
Heuchera hispida fr.
Hieracium canadense

Hordeum jubatum ^{new fr.}
Hypoxis hirsuta
Ira xanthifolia
Koeleria cristata
Kuhnia eupatorioides ^{new fr.}
 " " *corymbosa* ^{new fr.}
Lactuca canadensis
 " *Ludoviciana* ^{fr.}
Lappula Redowiana "
Lathyrus venosus ^{new fr.}
Lepachys pinnata ^{new fr.}
Lepidium apetalum ^{new fr.}
Lepedeza capitata
 " *leptostachya*
Liatris punctata ^{new fr.}
 " *pycnostachya* ^{new fr.}
 " *scariosa* ^{new fr.}
Linum sulcatum ^{new fr.}
Lithospermum angustifolium ^{new fr.}
 " *canescens* ^{new fr.}

Melilotus alba ^{new fr.}
 " *officinale* ^{new fr.}
Lobelia spicata
Tygodermia juncea ^{new fr.}
Monarda mollis ^{new fr.}
Muhlenbergia racemosa
Oenothera muricata ^{new fr.}
 " *serotina* ^{new fr.}
Onosmodium occidentale
Oxalis stricta
 " *violacea*
Oxybaphus hirsutus
 " *myctagineus*
Oxytropis Lamberti
Panicum capillare
 " *Leibergeri* ^{new fr.}
 " *Scribnerianum*
Pastinaca virgata ^{new fr.}
Pedicularis canadensis ^{new fr.}
Petalostemum candidum ^{new fr.}
 " *purpureum* ^{new fr.}
Phlox pilosa ^{new fr.}

Rhysalis heterophylla ^{few}
 " *virginiana* ^{few}
Poa compressa ^{few}
 " *pratensis* ^{occ.}
Polygala verticillata
Polygonum Convolverbes ^{few}
 " *pennsylvanicum*
 " *ramosissimum*
Potentilla arguta
 " *canadensis*
 " *monspeliensis*
Prenanthes aspera
 " *racemosa*
Proralea argophylla ^{new}
 " *esculenta* ^{few}
Pycnanthemum flexuosum
Ranunculus septentrionalis
Rhus glabra
 " *Toxicodendron* ^{few}
Rosa pratincola ^{new}

Rumex altissimus
Salix humilis
Salvia hali ^{var.}
Scrophularia leporella
Scutellaria parvula ^{new}
Setaria viridis ^{new}
Silene antirrhina
 " *stellata* ^{few}
Silphium laciniatum ^{few}
 " *perfoliatum* ^{com.}
Sisymbrium caucasicum
Sisyrinchium caespitose
Solanum rostratum
Solidago canadensis ^{few}
 " *graminifolia*
 " *missouriensis* ^{new}
 " *nemoralis* ^{new}
 " *rigida* ^{new}
 " *speciosa angustata* ^{new}
Stipa spartea ^{com.}

Symphoricarpos occidentalis

Tenckera canadense

Thalictrum dasycarpum ^{scab} _{sp.}

Tradescantia

Trifolium repens

"
Verbena hastata

" *stricta* ^{few} _{fl.}

Vernonia

Veronica virginiana

Vicia americana

Viburnum pedatifida

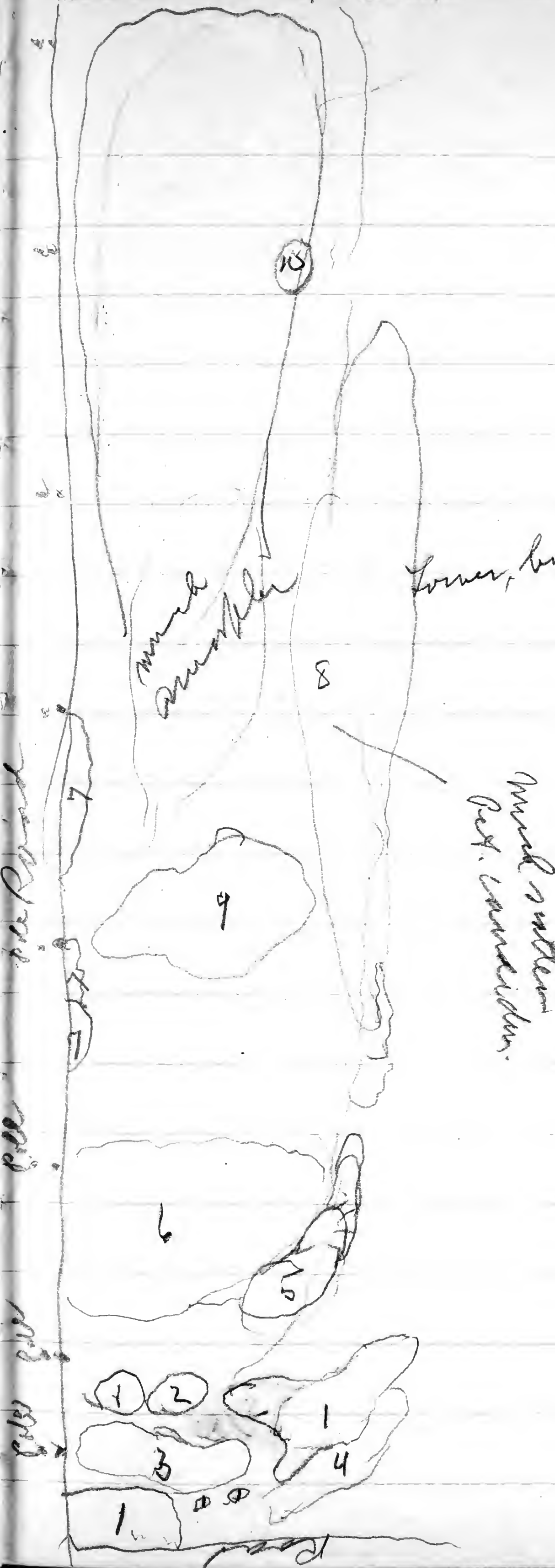
Vitis vulpina ^{few} _{sp.}

Zizia aurea

" *caudata*

Zygadenum chloranthum

Road to Lake



- 1- *Silphium perfoliatum*
- 2- *Andropogon furcata*
- 3- *Stipa sp.*
- 4- *Helianthus grosseserratus*
- 5- *Sagittaria arifolia*
- 6- *Prunella angustifolia*
- 7- *Helianthus scaberrimus*
- 8- *Petalostemum candidum*
- 9- *Amorpha canescens*
- 10- *Liatris scariosa*

Corner, but sloping

Mud Creek
Post. canadensis

Smucke

The upper (S) part of the Flats prairie
is well carpeted with grass, mostly
Bouteloua curtipendula & *Aster* species, but
the most conspicuous plant is *Ammophila*
canadensis, all over the area.

This & the ^{solidago} *Petalostemon*,
Coreopsis, *Rudbeckia*, etc. rise above
the grass, & the *Aster* will join them.

On the flatter, lower prairie to the
N. *Ammophila* about disappears &
Petalostemon canadensis is very common.
The plants are more vigorous, & the
following are striking

Petalostemon canadensis fl. very com.
Asclepias speciosa fl. com.
Rudbeckia sp. com.
Erigeron annuus fl. com. & large
Thalictrum dasycarpum fl. fl. com.
Parthenium integrum fl. com.
Lysichiton cuneata fl. (much more frequent)
Erigeron philadelphicus fl. large
Veronica virginica fl. fl. com.
Andropogon furcatus fl. large & more frequent
Salix humilis fl. more com.

Silphium laciniatum fl. few - large
Solidago nemoralis fl. com. large
Viola pyramidalis fl. fl. com.
Sium canadense fl. frequent
Prunella angustifolia fl. com.
Pedicularis canadensis fl. com.
Antennaria dioica fl. com.
Phlox pilularis fl. frequent
Elymus canadensis fl. com.
Lactuca ludoviciana fl. few.
Asclepias tuberosa fl. fl. (long draw)
Agrifolium minus fl. frequent
Agrifolium album fl. frequent
Helianthus scaberrimus fl. com.
Petalostemon purpureus fl. com.
Stellaria media fl. com.
Solidago v. angustata fl. com.
Astragalus canadensis fl. few.
Solidago nemoralis fl. few.
Andropogon furcatus fl. com. low down
Solidago rigida fl. few.
Ceanothus am. fl. fl. com.
Liatis scariosa fl. few
Bouteloua curtipendula fl. fl. com.
Prunella angustifolia fl. few.
Cirsium discolor fl. com.
Asclepias tuberosa fl. fl. com.
Helianthus annuus fl. com. further E.
Allium stellatum fl. few
Veronica virginica fl. few - lower
Rhus typhina fl. com.

Asclepias speciosa fl. fl. com.
Asclepias tuberosa fl. fl. com.

Stellaria media fl. fl. com.
Phlox pilularis fl. fl. com.

The lower part (not used) is
dominated largely by *Andropogon*
furcatus.

Lupinus & *Helianthus* are conspicuous
in the lower part, - lowest depression

Aug. 2, 1934 - Thurs.

I worked on the lower part of the
Holtz Prairie - the notes precede.

In the afternoon I worked on
Mollusks for lecture, and on notes.

Pack we collected *Desmanthus*
in fl. & fr.

Spent evening on Mollusk lecture.

August 3, 1934 - Friday

In the morning Marion and I
drove to the Silver Lake hanging bog.

I collected swamp plants for sections
(see vials) from both parts of the bog.
The farther (E.) part is better, - in
better condition. Few plants were in
flower.

Marion also picked up some *Succinea*
retusa under pieces of wood on the
swampy flat, & also *Lymnaea*
caerulescens, - chiefly in pools.

I wrote to Ella for shells for Zoology
& we drove to Milford with mail.

Later Anderson, Rose and I drove

to Little Spirit Lake. Dry, with great
sand-cracks. Much below. The woods part

was very dry, & Spirit Lake low & foul.

Stopped at Marble Lake (also low) &
Deep Lake was very low. At Temple

Aug. 4, 1934, Saturday.

Spent forenoon on flats & preparing for my talk at the Inn.

At 2 P.M. we drove to the Inn, and at the pavilion I talked to the Ojibwa Protective Association.

A small meeting.

I reminisced & then made 4 points:

- 1 - Keep sewage out of lake.
- 2 - " cattle out of lake.
- 3 - Prevent erosion.
- 4 - Each individual clean up.

Well-received and I was asked to write it up and send to the Secretary, Mr. L. P. Babcock, Hunt Lake, for distribution.

Sunday, Aug. 5, 1935 - Sunday.

We (Marjorie, Mrs. Anderson & I) drove to the Methodist Camp ground to hear Bishop Seger preach. (An

elderly, lame man, of the Evangelical Church. Preached on the efficacy of prayer.)

In the afternoon I worked on plan of buildings for Dr. Wolf. Hot during day, evening cool.

Aug. 6, 1934, Monday.

In the forenoon we drove to Wilford and I had five chicken-fence screens made for the farm. Anderson hasn't been using them - birds! He also has no anemometer.

~~We drove~~ ^{we took soil sample} ~~P.M. to Wilford~~ ^{for the screen, @ 30¢}
after supper we looked at road, where line marked across our north 40 A., and in the evening we drove to Woodcock's, but he was gone. Later he came to cottage and we had a long conference. He will want evidence for Gull Pond. He also discussed road.

Later I drove to Dr. Smith's with
McKinstry, & we conferred on the road.

Aug. 7, 1934 - Tues.

Measured S. part for map with
McKinstry.

In afternoon I worked on notes,
plants and mollusks. We drove to
Milford.

In the late afternoon Margie,
The Andersons & I drove to E.
side of Spirit Lake, - in our car.

Aug. 8, 1934. Wednes.

In forenoon I measured for map
with McKinstry. West & north.

In afternoon I worked on plant and
on mollusk lesson. Also
in the evening.

Aug. 9, 1934. Thursday

In forenoon I worked mostly on mollusk
lesson. Towards noon Mr. Giltner
of Des Moines & Mr. Alexander, collectors
on Des Moines beach, came to
consult about pollution
of the lake. They had been
induced to do so by the newspaper
account of my talk at the Inn.
I gave them the substance
of it, & they want copy.

Spent afternoon in improving
key (largely from memory) to
the genera of the Mollusks
of the Oboloviz region.

Rained at night.

Has been cooler,

Friday, Aug. 10, 1934

Spent forenoon in lab. with
mollusk people. Lectured, & then
used key for genera.

In the afternoon we went to the field.
It had rained some, & this helped.
We worked in woods at Jumping house &
at Beech's spring (found *Pipidini* certain
most common of *R. elm*, but some all
greenish & few on *Parrot*).

We then went to the sand spit
& collected living *Procerus* *avara*
& *S. retusa* on wet beach (somewhat
muddy) & also picked up drifted
shells. Altogether we found
23 species. Mr. Taylor, Mr. Wells,
Miss Hansen, Miss Jensen and Miss Kerkhoff
went out with me.

After supper Dr. Jagers & I went
to the Lookout and I observed
the following:

Upper part of Lookout

Helianthus scaberrimus ^{large} low present
Eryngium yuccifolium ^{fr. few}
Amaranthus ^{fr. com}
Monticola ^{fr. frequent, not}
Rosa ^{fr. present, not}
Tratium ^{fr. com}
Ostrya ^{fr. not}
Purpurea ^{fr. not}
Aster laevis ^{fr. com}
Solidago ^{fr. not}
Ranunculus ^{fr. not}
Andropogon ^{fr. not}
Cirsium ^{fr. not}
Erigeron ^{fr. not}
Helianthus ^{fr. not}
Alchemilla ^{fr. not}
Sorghastrum ^{fr. not}
Kuhnia ^{fr. not}
Lappula ^{fr. not}
Ceanothus ^{fr. not}
Agropyron ^{fr. not}
Bromus ^{fr. not}
Stipa ^{fr. not}
Solidago ^{fr. not}
Astragalus ^{fr. not}
Elymus ^{fr. not}
Oryzopsis ^{fr. not}
Aster multiflorus ^{fr. not}
Parthenocissus ^{fr. not}
Cirsium ^{fr. not}
Lathyrus ^{fr. not}
Aster ^{fr. not}
Solidago ^{fr. not}
Phlox ^{fr. not}

- 36 *Eriogonum ramosum* de bl. fr. 1
Lithospermum canum lf. 1
Anemone cylindrica lf. 1
 40 *Comandra* lf. 1
Rudbeckia hirta - also dry sev. stat.
Aster ptarmicoides fl. 1
Andropogon scoparius bud, fl. 1
Artemisia ludoviciana bud 1
Lactuca ludoviciana br. 3

Lower down, eastward:

- Andropogon furcatus* fl. com
Silphium laciniatum fl. 1
Solidago canadensis two clump.
Tragopogon — br.
Verbena stricta fr.
Helianthus grosseserratus lf. com.
Cynophosphyllum lf. 1

Towards evening about 20 Amer.
 people came in, headed by Messrs.
 Dietz and Loomis, - the latter an
 instructor in Cortary.

We were caught in shower on
 the 2nd Lookout. This has been

entirely destroyed. They are
 trying to raise red clover &
 there is (on an average) about 1 small
 to a square yard.

Spent the evening with the
 Amer. guests in living room of
 large cottage.

Aug. 11, 1934 - Sat.

Murky & raining. The Amer. people
 went out to see our prairie with
 Dr. Anderson. On return, Loomis
 asked him if we rented the
 prairie for pasture!

I worked indoors on plants
 & a new mollusk key in which
 habitat will be less essential.

Miss Hayden came with her
 father, & left in the evening.

Aug. 12, 1934. Sunday.

I had an attack of the intestinal trouble which has been epidemic in this region.

It was wet & blustering, too, and as we have to have dinner early on account of the Ames visitors, we did not go to church.

I worked a little on plants, etc., and slept much of the afternoon.

The Ames people left in the afternoon.

Aug. 13, 1934. Monday

Still blustering a part of the day. I was rather weak, but in the morning I made measurements with McKinstry around the pump house and northward, to the Meyer tract. Slept much of afternoon & visited in laboratory in evening.

Margie and I drove to Spring Lake towards evening.

¹⁹³⁴
Aug. 14, Tuesday

At 4 am. a cloud covered about $\frac{1}{2}$ of sky to east, but it thundered in the west, and rained here!

A heavy rain about 7 am. Mr. Van Baur, the superintendent of the hatchery, and Mr. ^{Everett} Healer came over to confer about work to be done. They are quite willing to cooperate. Mr. Healer wants me to show him plants suitable for planting in water & on banks, as at Storm Lake, & we will go Thursday. Cleared up.

Mrs. Frankel, her father (of Rock Island) & her daughter called.

At 2:00 PM. Mr. Geo. Shipley & Sheldon came to confer about

hybridization, & about preparation
of materials for sectioning.
Wants methods in his tolog.

I made barometric altitude measurement
from dock up to 61 ft, & checked first
30 ft. with step measurements. Agreed.

The ladies from near Bluff (Eagle)
Point, brought a lot of plants
for identification, - some last
year's. Will come later with more.

Spent evening in writing notes
and checking mollusk key.

August 15, 1934, Wednesday.

It rained at night and in the
morning, - over 1 in. of water fell.

I tried the new mollusk key
with the class, & spent forenoon in
notes, reading, etc.

Quite wet all forenoon.

In the afternoon I took altitude readings
at cottage & south, & collected Gastrophysa
costarica at Beech spring. I found
about 530 on the 3-divided Red Elm,
and about 30 on a double Green ash.
Took a map.

We drove to Milford and to
Spirit Lake. Mr. Rose told me
that I was asked to speak at the
Spirit Lake Protective Ass'n meeting
Friday evening.

Dr. Wolf and the Remley's drove
to Iowa City.

Day cleared up in the afternoon.
Spent early evening in putting
Gastrophysa away, and in writing
notes.

Aug. 16, 1934, Thursday.
A bright morning, with a very heavy dew.

I went out with Everett
Speaker & Mr. Rose to
Terrace Park.

We had a long visit with
Bill Woodward, President of the
Board of Conservation, and
talked pollution, etc.

We then looked up some
plants suitable for sand dunes.
There are to be used at Horn
Lake & elsewhere. I noted:

Sporobolus cryptandrus } the best.
Artemisia canadensis
Cyperus schweinfurthii
Ammophila arenaria (very good)
Potentilla fruticosa

also various prairie plants coming in

In the afternoon we looked for
beach plants around Little Hillers
Bay & Ash Bay.

I collected a few *Chenopodium*
botrys in woods N. of Kab.

Aug. 17, 1934 - Friday.
Made some altitude measurements,
but rained most of the day, so
I was about used up.

At 5:15 Mr. & Mrs. Frick
called for us & took us to
dinner at Temple Park. At
8 PM. I talked to the Spirit
Lake Protective Assn., Chas.
Allen of the Estherville Enterprise
residing. I emphasized:

Pollution
Sewage
Cattle
Toilets & rubbish
Evaporation
Plant Trees

Later I learned (from Woodcock) that Furman, the Co. Eng. who put in our septic tank, etc. objected to my talk & said that we (at the Lab.) ought to clean up first before telling others what to do, and that he did not observe the regulations of the Board of Health when he put our system in!

(I am taking this up.)

Woodcock gave a straighter from the shoulder talk on pollution.

Mrs. Frink brought us back

Aug. 18, 1934 - Saturday
Made some altitude measurements and rested a part of the day. Also worked on plats for Darling & Wallace (& Mrs. Frankel.) - Just before noon we saw Woodcock & Way of the Highway Comm.

Aug. 19, 1934 - Sunday
Spent most of day on plats and notes on letters to Wallace & Mrs. Frankel. In the evening I conferred with Dr. Wolf & Dr. Jacques relative to future work at the Lab., etc.

Aug. 20, 1934 - Mon.
Spent day waiting for Mr. Way, but wrote letters (to Wallace, Mrs. Frankel, etc.) and took some altitude measurements.

Aug. 21, 1934 Tues.

Took altitude (barometric)
measurements for topographic
map.

after supper Mr. Way of
the Highway Commission & Mr.
Call of Sioux Co. (his friend) came
up to look at our road.

The engineers are trying to grade
the road to 100 ft., taking 17 ft. off
the Lab. land.

Both are old timers in U. Iowa,
& both were much impressed
with our trying to save some
prairie. I also called attention to
the need of saving the bottle hole.

Mr. Way promised to do all he
could to save it for us, & wants
to keep in touch with me.

Conferred with Dr. Anderson &
Mr. Rose in evening as to future work at Lab.

O. A. Giltner
4006 Grand Ave
Des Moines Ia

Des Moines Beach

Mr. Frink

Mr. Allen

S. P. Baur, Fish-hatchery
Orleans, Iowa

Everett Specker (Orleans) Home in
Arnold's Park, Ia

Aphanogomodon

grapes out back
+ clear strip all around
Lab.

Transplant ash trees
Lawn in front
Clear around flag.

5. cottages now to path
+ then 10 ft. strip around

all girls dormitory + clear
N. side + triangle to path
Back Home - to row S. 9
10 ft. W. +

Small cottages 8 ft
Grape vines out

West garage take fence + grapes out
Tear out old toilet
10 ft. strip

Don McGollen
Wisconsin alpine

